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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings in the application:

1. (Currently amended) A biodegradable and biocompatible polyurethane composition synthesized by:

reacting isocyanate groups of at least one multifunctional isocyanate compound, wherein the multifunction isocyanate compound is formed via conversion of amine groups of a biocompatible compound having at least two amine groups to isocyanate groups, with at least one bioactive agent having at least one reactive group –X which is a hydroxyl group (-OH) or an amine group ($-NH_2$), the polyurethane composition being biodegradable within a living organism to release ~~biocompatible degradation products including~~ the bioactive agent, the released bioactive agent affecting at least one of biological activity or chemical activity in the host organism, wherein the bioactive agent is an enzyme, an organic catalyst, a ribozyme, an organometallic, a protein, a glycoprotein, a lipoprotein, a peptide, a polyamino acid, an antibody, a nucleic acid, a steroidal molecule, an antibiotic, an antiviral, an antimycotic, an anticancer agent, an immunosuppressant, a cytokine, a carbohydrate, an oleophobic, a lipid, an extracellular matrix, a component of an extracellular matrix, a chemotherapeutic agent, an anti-rejection agent, an analgesic agent, an anti-inflammatory agent, a hormone, a virus, a viral vector, a vireno, or a prion.

2. (Cancel) ~~The composition of Claim 1 wherein the multifunction isocyanate compound is formed via conversion of amine groups of a biocompatible compound having at least two amine groups to isocyanate groups.~~

3. (Original) The composition of Claim 2 wherein the bioactive agent has at least two reactive groups -X and $-X^1$ which are independently the same or different a hydroxyl group (-OH) or an amine group ($-NH_2$).

4. (Previously presented) The composition of Claim 3 wherein the multifunctional isocyanate compound is also reacted with at least one biocompatible polyol compound, the polyol compound having at least two reactive groups $-X^2$ and $-X^3$ which are independently the same or different hydroxyl group (-OH) or an amine group ($-NH_2$).